



# Wastewater Performance Report

**July 1, 2001 – June 30, 2002**

**Charlotte-Mecklenburg Utilities**

5100 Brookshire Blvd.

Charlotte, NC 28216

Phone: (704) 399-2221 Fax: (704) 393-2219

[www.cmutilities.com](http://www.cmutilities.com)

## **I. General Information**

### **Name of Regulated Entity and Responsible Person:**

City of Charlotte  
Barry Gullet, Deputy Director  
Charlotte-Mecklenburg Utilities  
Administration Division  
5100 Brookshire Blvd.  
Charlotte, NC 28216  
(704) 399-2221

### **Applicable Permits:**

There are five wastewater treatment facilities owned and operated by Charlotte-Mecklenburg Utilities. Charlotte-Mecklenburg Utilities also operates one facility that is owned by Mecklenburg County. Below is a list of these facilities and their applicable NPDES (National Pollutant Discharge Elimination System) permit number. Included with the list of facilities is the name of the Operator in Responsible Charge (ORC) at the facilities and the site telephone numbers.

<b>WWTF</b>	<b>Permit Number</b>	<b>ORC</b>	<b>Phone</b>
Irwin Creek WWTP	NC0024945	James T. Hunter	704-357-1344
Mallard Creek WRF	NC0030210	Jerome Lucky	704-547-0680
McAlpine Creek WWMF	NC0024970	Sandy Kim Neely	704-542-0736
McDowell Creek WWTP	NC0036277	Elliot E. Goins, Jr.	704-875-6443
Sugar Creek WWTP	NC0024937	Roy E. Purgason, Jr.	704-553-2124
<b>WW COLLECTION</b>	<b>Permit Number</b>	<b>ORC</b>	<b>Phone</b>
4100 W. Tyvola Road	pending	Earl Peigler	704-357-6064

The wastewater treatment facility that is owned by Mecklenburg County and operated by Charlotte-Mecklenburg Utilities is:

<b>WWTF</b>	<b>Permit Number</b>	<b>ORC</b>	<b>Phone</b>
McDowell Park WWTP	NC0029220	Robert P. Norris	704-537-1344

### **Description of collection and treatment systems:**

The wastewater collection system currently operates under existing wastewater treatment plant NPDES permits. However, the N.C. Department of Environment and Natural Resources has begun permitting wastewater collection systems statewide, and Utilities is currently in the process of applying for its collection system permit.

Charlotte-Mecklenburg Utilities collects wastewater from an estimated 176,139 connections to households and businesses throughout the county. Wastewater is collected and directed (via gravity flow supported by 65 sewage lift stations) to any one of five wastewater treatment plants where it is treated and released. An average of 72 million gallons of wastewater is treated and discharged each day.

More than 100 employees work to maintain 3,145 miles of collection pipelines and 65 sewage lift stations throughout the county to ensure proper gravity flow. The sewer pipes in this system range in size from 6 inches in diameter to 78 inches in diameter.

Each of the wastewater treatment plants provides primary, secondary and advanced treatment to the waste stream. Large solid particles and inorganic materials are removed by screening and settling. The wastewater is treated biologically to remove dissolved pollutants. Disinfection reduces bacterial and pathogenic materials. Finally, the waste stream passes through sand filters to remove very small particles that may not have been removed through the settling process.

## **II. Summary of System Performance**

### **Highlights**

Charlotte-Mecklenburg Utilities safely collected, treated and discharged more than 26.25 billion gallons of wastewater for the fiscal year ending June 30, 2002. Our wastewater collection system and plants safely transported and processed more than 99.995 percent of all flow. Less than 0.005 percent escaped the collection and treatment system in the form of sewage spills and overflows. Our wastewater treatment plants met 99.9 percent of all permitted discharge limits.

This accomplishment required a coordinated effort between our Wastewater Collection, Environmental Management, Laboratory Services and Engineering divisions. (Environmental Management includes our wastewater treatment, system protection and residuals management units.)

In FY02, this Utilities teamwork resulted in several highlights:

- For the third year in a row, two wastewater plants – McAlpine and Sugar – earned Silver Performance Awards from the Association of Metropolitan Sewerage Agencies. Irwin Creek WWTP earned its first Silver Award. These awards are given to those plants with five NPDES permit violations or fewer during the calendar 2001 year.
- After winning the Silver Award for the two previous calendar years, the McDowell Creek Wastewater Treatment Plant earned its first Gold Award this past calendar year. This means the plant had zero NPDES permit violations during the year.
- Approximately 785 miles of sewer lines were cleaned (including repeated cleanings).
- 11.4 miles of sewer lines were restored or replaced
- Plant expansions and upgrades continued at all five treatment facilities to enhance performance and meet discharge permit requirements.
- In its second year, our Oil & Grease Prevention Program inspected grease-handling facilities at 1,083 restaurants to ensure compliance with city sewer use ordinance and protect the sewer system from improper grease disposal. A total of 278 Notices of Violation and 314 Compliance Orders were issued.
- In January, Utilities and water quality officials from North and South Carolina announced a landmark, two-state water quality agreement whereby Utilities agreed to a five-year plan to reduce phosphorus levels in its effluent from the McAlpine, Sugar and Irwin wastewater plants by 70 percent.

### **Continuing Challenges**

The greatest continuing wastewater challenge in this community – and in others across the U.S. – are sewage spills and overflows. During the fiscal year ending June 30, 2002, Utilities reported 259 sewage spills from the collection system, and seven from the five plants.

While the total number of collection system spills is higher than last year's figures, it represents a continuing decline based compared to the five-year annual average. That five-year average now stands at 265 collection system spills per year (from FY1997 to present).

Most spills are due to blockages in the line caused by a buildup of grease, rocks, sand, or roots. Vandalism is also a serious problem, with tree stumps, logs, bricks, rags, and other miscellaneous items being dumped into manholes or forced into lines to cause a blockage. Leaking joints and crushed or broken lines cause overflows, and so do surcharges from heavy rains and accidental damage to manholes or pipes.

Grease and other blockages that lead to sewer overflows are cleared by Utilities crews, using metal rods and/or truck-mounted water jets. If damaged pipe or other infrastructure is discovered it is repaired. Charlotte-Mecklenburg Utilities continues its excellent sewage spill response record. Our wastewater collection staff averaged a 33.4-minute response time to all overflows as of June 30, 2002. This compares to a state response standard of 120 minutes or less.

Generally, clean-up of sewage spills involves raking up all solids, vacuuming the sewage, flushing with water, and spreading lime and straw over the affected spill area. The spilled sewage can sometimes be captured and pumped back into the sewer system.

All five Utilities treatment plants met 99.9 percent of all discharge limits set forth by our NPDES permits but our commitment is 100 percent compliance. To achieve this we have increased predictive and preventative maintenance. We are currently upgrading all five plants to enhance our treatment capabilities under existing and future permit limits.

These plant improvements – along with enhancements in water quality sampling equipment and procedures – helped achieve significantly fewer water quality and reporting violations this year.

Finally, our pretreatment program has identified, permitted and is regulating all large industrial users to keep unsuitable discharges out of the wastewater system. While industrial compliance is extremely high in Charlotte-Mecklenburg, identifying other potentially hazardous discharge sources is an ongoing challenge. In FY02 expansion of the trunkline monitoring program continued, enabling Utilities pretreatment staff to more closely observe what industrial and commercial customers discharge into the sewer network and to identify potential problem areas to protect the collection system and plants.

*The sections following this page – Sections IIA and IIB -- detail all spills from the collection system and plants, along with plant permit limit violations and monitoring and reporting violations. Section IIA includes spills for the fiscal year ending June 30, 2002 and is separated by month. These include size of spills, their cause and descriptions of any known environmental impact.*

*The second section, Section IIB, represents NPDES reporting and monitoring violations and is separated by plant.*

### **III. Notification**

This report is available to the users or customers of this system on the Charlotte-Mecklenburg Utilities website at [www.cmutilities.com](http://www.cmutilities.com). There are also printed copies available at the Charlotte-Mecklenburg Utilities Administration Building at 5100 Brookshire Blvd., Charlotte, NC 28216, and at the City/County Customer Service and Information Center at 600 East Fourth Street, Charlotte, NC 28202. The users or customers of this system will receive a summary version of this report and will be notified of the availability of this comprehensive version via a bill insert in the September 2002 water/sewer bill. A news release will be issued before September 1 about this report. In addition, the summary version will be translated into Spanish and advertised during the month of September in *La Noticia*, a regional Spanish-speaking newspaper. We will also make this Spanish version available via our website.

### **IV. Certification**

I certify under penalty of law that this report is complete and accurate to the best of my knowledge. I further certify that this report has been made available to the users or customers of the named system and that those users have been notified of its availability.

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Barry Gullet, Deputy Director  
Charlotte – Mecklenburg Utilities

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Date

**IIA. Listing of Sewer Spills by Month**

The following is a list of spills from the public wastewater system that occurred between July 1, 2001 and June 30, 2002. Most occurred from the wastewater collection system. Spills that occurred at wastewater plants are noted in the address.

<b>JULY Date</b>	<b>Total Estimate (gallons)</b>	<b>Amount Reaching Surface Water (gallons)</b>	<b>Surface Water Name</b>	<b># Fish Killed</b>	<b>Address</b>	<b>Cause of Spill/Bypass</b>
7/1/01	800	400	Sugar Creek Little trib	0	516 Farmhurst Dr	Sticks and debris build up at mouth of downstream pipe.
7/2/01	500	500	Long Creek trib	0	5300 Henderson Cr	Sewer line was vandalized. Three (3) manholes full of wood, sticks, and bike parts.
7/3/01	13800	13800	Long Creek trib	0	5200 Victoria Av	Sewer line was vandalized.
7/9/01	600	0	n/a	0	5415 Ballantyne Commons Pk	Grease, root, & rag blockage
7/11/01	5300	3000	Toby Creek trib	0	8601 University City Bv	Grease & paper blockage.
7/11/01	100	0	n/a	0	2540 Horne Dr	Leak from joint of pipe.
7/12/01	1670	1670	Sugar Creek trib	0	9049 Arborgate Dr	Root & grease main line blockage leaking into storm drain.
7/13/01	400	200	Taggart Creek trib	0	2526 Plato Cr	Root blockage in main line.
7/16/01	1700	100	Briar Creek trib	0	4213 Vinetta Ct	Root blockage in main line.
7/20/01	800	800	Sugar Creek Big trib	0	518 Fallingwood Ct	Root & grease blockage.
7/20/01	7950	7950	Stewart Creek trib	0	901 N I-85 Service Rd	Cans & bottles blocking main line at 901B.
7/21/01	1800	1600	Briar Creek trib	0	6609 Cool Water Ct	Root & grease main line blockage.
7/21/01	600	600	McDowell Creek trib	0	16501 Stonemason Dr	Grease & paper main line blockage.
7/22/01	1400	1400	McDowell Creek trib	0	7943 Babe Stillwell Farm Rd	Rocks caused main line blockage.
7/24/01	500	500	Irwin Creek trib	0	700 W 6 <sup>th</sup> St	Insituform's by-pass pumping for CIPP, by-pass hose burst.
<b>month total</b>	<b>37,920</b>	<b>32,520</b>				

<b>AUGUST Date</b>	<b>Total Estimate (gallons)</b>	<b>Amount Reaching Surface Water (gallons)</b>	<b>Surface Water Name</b>	<b># Fish Killed</b>	<b>Address</b>	<b>Cause of Spill/Bypass</b>
8/6/01	600	600	Sugar Creek Little trib	0	5541 South Bv	Grease & dirt blockage at rear of property.
8/7/01	100	100	McDowell Creek trib	0	19710 Center St, Cornelius	Root blockage in 4" line.
8/8/01	400	200	Sugar Creek Little trib	0	7300 Starvalley Dr	Grease & root blockage.
8/10/01	1,300	0	n/a	0	SUGAR CREEK WWTP – 5301 Closeburn Road	Operator error; partially treated wastewater allowed to back-siphon into area near storm drain
8/13/01	950	150	Briar Creek trib	0	2000 St Johns Church Rd	Root blockage in off-street line and manhole.
8/14/01	800	100	Toby Creek trib	0	627 Graham Meadow Dr	Root blockage in manhole.
8/15/01	1600	1600	Taggart Creek trib	0	8800 Old Dowd Rd	Manhole cover was hit and the cone moved. A brick fell into the manhole and stopped up line.
8/16/01	800	800	Sugar Creek Little trib	0	8401 Sharon Lakes Dr	Grease blockage in off-street line.
8/19/01	500	500	Highland Creek trib	0	5812 Kinglet Ln	Grease blockage in main line.
8/22/01	2000	75	Sugar Creek Little trib	0	440 S Independence Bv	Leak from trunk line, continuing to pump 08/23/2001
8/23/01	400	200	McMullen Creek trib	0	4101 Columbine Cr	Root, grease, and garbage blockage.
8/24/01	500	500	Taggart Creek trib	0	1814 Brookvale St	Vandalism blockage.
8/25/01	200	200	McMullen Creek trib	0	413 Livingston Dr	Root blockage.
8/27/01	3975	2000	McAlpine Creek trib	0	2600 Lynbridge Dr	Roots in city main line.
8/30/01	1350	1350	McMullen Creek trib	0	3327 Gresham Pl	Root blockage.
<b>month total</b>	<b>15,475</b>	<b>8,375</b>				

SEPTEMBER Date	Total Estimate (gallons)	Amount Reaching Surface Water (gallons)	Surface Water Name	# Fish Killed	Address	Cause of Spill/Bypass
9/3/01	225520	33828	Irwin Creek trib	0	1243 Spruce St	Surcharge, high water / flood level in creek. Unknown obstruction in Irwin Creek outfall line near treatment plant. Line overflowed 3 hours on 09/03/2001 and 5 hours on 09/04/2001. Cause of obstruction undetermined.
9/3/01	400	300	Irwin Creek trib	0	6612 Thamesmead Ln	Grease blockage.
9/10/01	5350	4014	Mountain Island Lake trib	0	2911 Shady Reach Ln	Contractor bored into force main while boring under road for gas service installation.
9/10/01	1400	700	Briar Creek trib	0	1946 Masonic Dr	Wood blockage in manhole.
9/11/01	200	200	Sugar Creek trib	0	4500 N Tryon St	Leaking at joint.
9/11/01	600	200	6 Mile Creek trib	0	4002 Raven Rock Ct	Pipe was damaged by others.
9/19/01	4600	1000	Kings Branch trib	0	5829 Cherrycrest Ln	Grease blockage.
9/20/01	2650	2650	McMullen Creek trib	0	8320 Park Vista Cr	Grease & root blockage.
9/21/01	400	400	Irwin Creek trib	0	325 W Matthews St	Grease & root blockage.
9/22/01	45800	45800	Stewart Creek trib	0	1949 Freedom Dr	Root & grease blockage in off-street line at rear of this address.
9/22/01	1335	1335	McMullen Creek trib	0	2101 Knickerbocker Dr	Root blockage
9/24/01	1,700	0	n/a	0	SUGAR CREEK WWTP – 5301 Closeburn Road	Mechanical failure due to new construction and heavy rain event
9/24/01	26700	26700	Irwin Creek trib	0	1243 Spruce St	Irwin Creek outfall surcharged by rain, line spilling in two places. Above address & 2300 Barringer Dr.
9/25/01	600	600	Sugar Creek trib	0	6511 Park Rd	Roots in city main.
9/25/01	2650	500	Rocky Branch trib	0	8336 Cricket Lake Dr	Grease blockage.
9/27/01	200	200	Sugar Creek trib	0	701 N Graham St	Grease main line blockage, leaking into storm drain.
9/27/01	2000	1500	Tiger Branch trib	0	2064 Lakeland Dr	Vandalism, rock blockage.
9/29/01	200	200	Stewart Creek trib	0	600 Village Ct	Grease blockage.
<b>month total</b>	<b>322,305</b>	<b>120,127</b>				

OCTOBER Date	Total Estimate (gallons)	Amount Reaching Surface Water (gallons)	Surface Water Name	# Fish Killed	Address	Cause of Spill/Bypass
10/1/01	5300	1000	Kings Branch trib	0	617 Silverleaf Rd	Root & grease blockage at the mouth of the pipe.
10/3/01	2650	2650	Edwards Branch trib	0	1016 Hickory Nut St	Dropped pipe, caused by wash out, on off-street line.
10/3/01	100	100	Campbell Creek trib	0	5020 Glenbriar Dr	Sticks, paper, & root blockage at rear of property
10/9/01	400	400	Briar Creek trib	0	2762 Meadowcliff Dr	Grease blockage.
10/11/01	1200	1200	Sugar Creek trib	0	3015 Westfield Rd	Main line damage to off-street line going to siphon.
10/12/01	600	600	Sugar Creek Little trib	0	10410 Park Rd	Rocks in manhole.
10/12/01	400	400	McMullen Creek trib	0	5144 Colony Rd	Main line blockage by roots.
10/13/01	400	400	McAlpine Creek trib	0	8220 Nathanael Greene Ln	Root blockage.
10/15/01	400	400	Paw Creek trib	0	1300 Interurban Av	Roots & bricks in main line
10/16/01	500	400	Sugar Creek Little trib	0	9530 South Bv	Vandalism, stick & grease blockage
10/16/01	100	100	Sugar Creek Little trib	0	1203 Ordermore Av	Main line blockage with grease, roots, and rocks. Sewage entering storm drain where pipes meet.
10/16/01	400	400	Long Creek trib	0	577 Dannyn Grove Ct	Main line blocked with roots and grease.
10/18/01	1700	1700	McMullen Creek trib	0	3327 Gresham Pl	Root & grease blockage
10/29/01	400	400	Sugar Creek Little trib	0	6827 Woodstock Rd	Grease blockage in main line.
10/29/01	50	25	Irwin Creek trib	0	3400 Reid Av	Grease & stick blockage
10/31/01	7263	5000	Campbell Creek trib	0	1100 Cedarwood Ln	Grease, roots, bad pipe blockage.
<b>month total</b>	<b>21,863</b>	<b>15,175</b>				

<b>NOVEMBER Date</b>	<b>Total Estimate (gallons)</b>	<b>Amount Reaching Surface Water (gallons)</b>	<b>Surface Water Name</b>	<b># Fish Killed</b>	<b>Address</b>	<b>Cause of Spill/Bypass</b>
11/3/01	2650	2300	Clark Creek trib	0	9904 Wolf Creek Tl	Roots & grease blockage.
11/7/01	600	600	Torrence Creek trib	0	216 Greenway Dr, Huntersville	Roots & grease caused blockage.
11/14/01	1000	1000	Sugar Creek Little trib	0	530 E Sugar Creek Rd	Blockage caused by grease and paper.
11/14/01	600	600	Sugar Creek Little trib	0	301 S McDowell St	Blockage was caused by grease and paper.
11/15/01	400	400	Sugar Creek Little trib	0	7139 Sherbourne Dr	Rocks, paper and debris.
11/16/01	2000	500	McAlpine Creek trib	0	10909 Valley Spring Dr	Rocks, debris.
11/20/01	400	400	Four Mile Creek trib	0	4300 Piper Glen Dr	Blockage at mouth of down stream manhole caused by roots.
11/21/01	400	300	Briar Creek trib	0	2927 Sharon Rd	Roots and paper.
11/25/01	2650	0	McAlpine Creek trib	0	11525 Lone Star Cr	Grease in mouth of manhole.
11/26/01	1700	1700	Sugar Creek Little trib	0	1425 Cressida Dr	Mud in hole, behind property.
11/26/01	2650	1000	Briar Creek trib	0	1610 Eastcrest Dr	Grease, paper, & garbage blockage.
11/27/01	1200	1200	Sugar Creek Little trib	0	910 Willis St	Root & grease blockage.
11/28/01	200	50	Briar Creek trib	0	3622 Denson Pl	Sewage leaking from joint of pipe crossing creek
11/29/01	400	400	Sugar Creek trib	0	1000 E 10 <sup>th</sup> St	Main line blockage - grease. Line goes under I - 277.
11/30/01	200	200	Sugar Creek trib	0	3201 N I-85 Service Rd	Grease blockage in main line.
<b>month total</b>	<b>17,050</b>	<b>10,650</b>				

DECEMBER Date	Total Estimate (gallons)	Amount Reaching Surface Water (gallons)	Surface Water Name	# Fish Killed	Address	Cause of Spill/Bypass
12/4/01	400	100	Sugar Creek Little trib	0	1000 Echo Glen Rd	Root blockage
12/4/01	2650	1000	Swan Run Branch trib	0	1228 Turnbridge Rd	Root, paper, grease blockage at rear of property
12/5/01	400	200	Stewart Creek trib	0	300 S Hoskins Rd	Grease & root blockage
12/5/01	200	50	McAlpine Creek trib	0	6930 Wallace Dr	Roots & grease blockage
12/6/01	800	800	Sugar Creek Little trib	0	6135 Park South Dr	Dropped joint, off set, cracked or crushed pipe. Small leak getting into storm drain.
12/6/01	400	400	Campbell Creek trib	0	4639 Easthaven Dr	Roots
12/7/01	800	800	McMullen Creek trib	0	2126 Cortelyou Rd	Root, grease, & paper blockage
12/8/01	2000	2000	Kings Branch trib	0	665 Archdale Dr	Grease from apartments.
12/8/01	200	200	Little Hope Creek trib	0	1314 Richmond Pl	Grease and roots.
12/10/01	2650	2650	McAlpine Creek trib	0	4640 Drifter Dr	Roots and grease.
12/12/01	200	100	Briar Creek trib	0	2249 Club Rd	Unknown. Received call from MCDEP on 12/12/01 and a crew responded - found nothing. Another crew went out 12/13/01 and saw evidence of small spill at an off street manhole. No spill sighted; blockage had cleared
12/14/01	2000	2000	Sugar Creek trib	0	510 Huntsmoor Dr	Wood, sticks and rock. Clean up crew found sewage further down the creek, dammed it up and pumped it back into the system.
12/21/01	200	200	Sugar Creek Little trib	0	400 N College St	Grease



<b>JANUARY Date</b>	<b>Total Estimate (gallons)</b>	<b>Amount Reaching Surface Water (gallons)</b>	<b>Surface Water Name</b>	<b># Fish Killed</b>	<b>Address</b>	<b>Cause of Spill/Bypass</b>
1/2/02	1800	1800	Sugar Creek Little trib	0	200 E 8 <sup>th</sup> St	Damaged pipe, grease and paper.
1/5/02	400	400	Sugar Creek trib	0	4800 Fairheath Dr	Grease.
1/7/02	1000	300	Ramah Creek trib	0	109 Old Statesville Rd	Root blockage in main line.
1/9/02	4000	100	Little Sugar Creek	0	SUGAR CREEK WWTP – 5301 Closeburn Road	Mechanical failure due to construction
1/11/02	700	700	Briar Creek trib	0	1134 Wilann Dr	Sub-contractor to Duke Power installed electric post through main line
1/11/02	800	200	McAlpine Creek trib	0	9108 Blue Willow Ln	Grease blockage in mouth of pipe.
1/13/02	600	600	Irwin Creek trib	0	4406 Devonhill Ln	Blockage due to grease.
1/15/02	4000	4000	Clarks Creek South Prong trib	0	500 Huntersville-Concord Rd, Huntersville	Blockage due to grease, roots and sand.
1/15/02	4600	3000	Briar Creek trib	0	3450 Latrobe Dr	Blockage due to rocks, grease & debris.
1/16/02	2000	0	n/a	0	11515 Granite St.	Blown force main.
1/19/02	2700	2700	Clarks Creek South Prong trib	0	14201 Old Vermillion Dr, Huntersville	Excessive flows due to Inflow & Infiltration
1/19/02	2650	2650	Kings Branch trib	0	1007 Archdale Dr	Root blockage in main line.
1/20/02	200	200	Irwin Creek	0	IRWIN CREEK WWTP – 4000 Westmont Drive	Operator error requiring adjustment to ; treatment process
1/20/02	4575	4575	Briar Creek trib	0	2465 Mecklenburg Av	Grease blockage
1/21/02	3975	3975	McMullen Creek trib	0	7745 Little Av	Root, rag, paper, and plastic main line blockage
1/22/02	5300	5300	McMullen Creek trib	0	7702 Pineville-Matthews Rd	Grease, paper, debris, & damage to main line.
1/22/02	400	400	McAlpine Creek trib	0	2801 Allenton Trails Ln	Roots & grease blockage

1/23/02	36750	36750	Clarks Creek South Prong trib	0	14201 Old Vermillion Dr, Huntersville	Excessive inflow and infiltration into gravity system
1/26/02	5000	5000	McMullen Creek trib	0	3514 Colony Crossing Dr	Grease
1/28/02	4600	4600	Taggart Creek trib	0	4500 Denver Av	Root main line blockage
1/28/02	2188	1500	Sugar Creek Little trib	0	5216 Springview Rd	Root, grease, paper, towels, & rags main line blockage.
1/29/02	250	250	Irwin Creek trib	0	215 N Sycamore St	Main line damage
1/31/02	139,000	139,000	Mallard Creek	0	MALLARD CREEK WWTP – 12400 U.S. 29 North	Operator error during testing of new construction
<b>month total</b>	<b>227,488</b>	<b>218,000</b>				

<b>FEBRUARY Date</b>	<b>Total Estimate (gallons)</b>	<b>Amount Reaching Surface Water (gallons)</b>	<b>Surface Water Name</b>	<b># Fish Killed</b>	<b>Address</b>	<b>Cause of Spill/Bypass</b>
2/2/02	400	0	n/a	0	400 Main St, Matthews	Main line blockage with roots past clean-out at
2/03/02	120	120	Irwin Creek	0	IRWIN CREEK WWTP – 4000 Westmont Drive	Pipe carrying partially treated wastewater broke
2/3/02	400	400	Irwin Creek trib	0	2910 Horseshoe Ln	Root blockage in main line.
2/4/02	7950	7400	Irwin Creek trib	0	1816 Parker Dr	Grease main line blockage.
2/5/02	2650	2650	Sugar Creek trib	0	10006 Woody Ridge Rd	Grease, roots, and paper blockage.
2/5/02	400	400	Irwin Creek trib	0	2300 Morton St	Root & grease main line blockage in intersection of Berryhill & Morton.
2/5/02	800	800	McMullen Creek trib	0	739 Glendora Dr	Blockage caused by grease.
2/9/02	600	600	McAlpine Creek Trib	0	1216 Braeburn Rd	Blockage caused by roots and grease.

2/11/02	400	400	Mallard Creek trib	0	9621 St Barts Ln Huntersville	Blockage due to grease and trash in main line.	
2/12/02	800	100	Sugar Creek Little trib	0	3025 Forest Park Dr	Roots & grease blockage	
2/13/02	1200	400	McAlpine Creek trib	0	7419 Pirates Cove Ct	Vandalism with rocks, bricks, & sticks.	
2/14/02	800	800	McMullen Creek trib	0	5312 McAlpine Farm Rd	Root, grease, & paper main line blockage	
2/14/02	1670	800	Briar Creek trib	0	2200 Thetford Ct	Root, paper, & grease main line blockage near Runnymede	
2/17/02	20000	100	McMullen Creek trib	0	4619 Colony Rd	Vandalism, rocks & wood main line blockage	
2/17/02	1600	0	Irwin Creek trib	0	4528 Rose Ridge Pl	Grease blockage	
2/19/02	27410	27410	McMullen Creek trib	30	9100 Winged Bourne	Grease & paper main line blockage	
2/20/02	400	400	Little Hope Creek trib	0	429 Briarbend Dr	Rocks, sand, & paper main line blockage	
2/22/02	400	300	McAlpine Creek trib	0	5031 Parview Dr South	Grease main line blockage	
2/24/02	150000	148000	McAlpine Creek trib	0	8827 Sweetwater Ct	Large volume of gravel in main line, investigating source.	
2/24/02	400	200	Sugar Creek Little trib	0	7133 Starvalley Dr	Roots	
2/27/02	800	400	Briar Creek trib	0	6403 Treeline Pl	Main line damaged when creek was rehabilitated.	
2/28/02	400	400	Sugar Creek trib	0	701 Echodale Dr	Grease at mouth of pipe in overflowing manhole.	
2/28/02	19200	19200	Sugar Creek trib	0	6800 Dunmurry Ln	Roots & grease.	
2/28/02	400	400	McMullen Creek trib	0	3232 Johnny Cake Ln	Roots and grease.	
2/28/02	400	400	McAlpine Creek trib	0	500 Sunnywood Ln	Sticks and leaves.	
<b>month total</b>	<b>239,600</b>	<b>212,080</b>					

<b>MARCH Date</b>	<b>Total Estimate (gallons)</b>	<b>Amount Reaching Surface Water (gallons)</b>	<b>Surface Water Name</b>	<b># Fish Killed</b>	<b>Address</b>	<b>Cause of Spill/Bypass</b>
3/2/02	18000	18000	Clarke Creek South Prong trib	0	14201 Old Vermillion Dr, Huntersville	Excessive inflow into gravity system during rain event. Station operating properly but could not handle amount of inflow.
3/4/02	5000	3000	Sugar Creek Little trib	0	4536 Wentworth Pl	Insituform's contractor caused overflow
3/4/02	5300	5300	McMullen Creek trib	0	4009 Craig Av	Rocks, grease, & paper main line blockage
3/5/02	800	800	Stewart Creek trib	0	1823 Northbrook Dr	Blockage due to grease and paper towels.
3/6/02	200	200	Sugar Creek trib	0	4024 Castlewood Rd	Roots in main.
3/7/02	6000	500	Little Sugar Creek	0	SUGAR CREEK WWTP – 5301 Closeburn Road	Operator error
3/7/02	200	200	Sugar Creek Little trib	0	211 Greenwich Rd	Blockage caused by grease.
3/8/02	29150	25000	McMullen Creek trib	0	5600 Monroe Rd	Blockage due to rock and grease.
3/8/02	2650	2300	Kings Branch trib	0	5623 Cherrycrest Ln	Roots, grease and paper.
3/8/02	1000	1000	Sugar Creek Little trib	0	1540 Garden Tr	Main line blockage - roots. Sewage leaking out of old service.
3/8/02	200	100	Pawtucket Creek trib	0	7004 Delisa Dr	Vandalism with rocks.
3/9/02	800	800	Campbell Creek trib	0	5709 Cedars East Ct	Blockage caused by grease.
3/9/02	200	200	Sugar Creek trib	0	300 Wellingford St	Grease.
3/10/02	18975	15000	Irwin Creek trib	0	2646 Toomey Av	Grease & paper main line blockage on R-O-W easement
3/11/02	1000	1000	Sugar Creek Little trib	0	309 Bennett St	Grease blockage in main line
3/11/02	400	200	Briar Creek trib	0	5815 Boxwood Ln	Backed up main line leaking into storm drain
3/14/02	200	200	Taggart Creek trib	0	3719 Morris Field Rd	Root, grease, & paper main line blockage

3/15/02	6625	5000	Toby Creek trib	0	8300 University City Bv	Rocks & grease main line blockage.
3/16/02	600	600	Briar Creek trib	0	5928 Ruth Dr	Root & grease main line blockage
3/17/02	3312	3000	McAlpine Creek trib	0	8808 Idlewild Rd	Off-set pipe leaking.
3/18/02	25	0	n/a	0	6101 Old Providence Ln	Root main line blockage.
3/19/02	400	400	Campbell Creek trib	0	7526 Dorn Cr	Root & grease main line blockage.
3/21/02	600	600	McAlpine Creek trib	0	5430 Sharon View Rd	Roots & grease main line blockage.
3/21/02	600	600	McDowell Creek trib	0	20657 Catawba Av	Grease main line blockage.
3/21/02	200	65	Sugar Creek trib	0	2506 S Tryon St	Grease & paper main line blockage
3/21/02	400	400	Briar Creek trib	0	301 Vickery Dr	Grease & paper main line blockage
3/23/02	200	50	McAlpine Creek trib	0	6633 Barcliff Dr	Grease & paper main line blockage
3/23/02	400	200	McMullen Creek trib	0	7047 Whitemarsh Ct	Grease main line blockage
3/23/02	2650	2650	McMullen Creek trib	0	3247 Seven Eagles	Grease main line blockage
3/25/02	100	100	Campbell Creek trib	0	6212 Grove Park Bv	Root, grease, paper main line blockage
3/25/02	800	800	McMullen Creek trib	0	4201 Tottenham Rd	Root main line blockage
3/25/02	200	200	Four Mile Creek trib	0	420 S Freemont St	Root & grease manhole & main line blockage
3/26/02	400	400	McAlpine Creek trib	0	9410 D Duck Ln	Grease main line blockage
3/27/02	8802	8802	Sugar Creek Little trib	0	219 Lynnwood Dr, Pineville	Force main blow out.
3/29/02	400	400	Stewart Creek Creek trib	0	500 S Turner Av	Root & grease main line blockage
<b>month total</b>	<b>116,789</b>	<b>98,067</b>				

<b>APRIL Date</b>	<b>Total Estimate (gallons)</b>	<b>Amount Reaching Surface Water (gallons)</b>	<b>Surface Water Name</b>	<b># Fish Killed</b>	<b>Address</b>	<b>Cause of Spill/Bypass</b>
4/1/02	400	400	Four Mile Creek trib	0	904 Laurel Park Dr	Root & grease in city main line
4/1/02	400	400	McAlpine Creek trib	0	7800 Sardis Rd	Root & grease main line blockage
4/5/02	500	500	n/a	0	11536 Foggy Bank Ln	Damaged sewer line - line cut at box - Low Pressure - entire spill amount vacuumed up by combination machine.
4/8/02	5000	2250	Briar Creek trib	0	2200 Sagamore Rd	The sewer line was in process of being cleaned with a jetter when SSO occurred.
4/8/02	400	0	n/a	0	1701 Choyce Av	Vandalism, ring & cov
4/10/02	400	400	Sugar Creek Little trib	0	8021 Regent Park Ln	Root & grease main line blockage.
4/10/02	600	600	McMullen Creek trib	0	7111 Cedar Lake Ct	Grease & root main line blockage
4/14/02	23300	21000	Doby Creek trib	0	7400 Neal Rd	Grease & rock main line blockage
4/15/02	400	400	Sugar Creek trib	0	1301 Ashby St	Manhole was filled up with clean stone causing blockage
4/16/02	2000	0	n/a	0	312 Houston St	Vandalism - all sewage pumped back to downstream manhole
4/16/02	200	200	Taggart Creek trib	0	4329 Ashley Cr	Vandalism, 20+ sticks & tree branched caused main line blockage
4/20/02	800	800	McAlpine Creek trib	0	7436 LaHarne Dr	Broken pipe.
4/20/02	2925	1400	Irwin Creek trib	0	2306 Horne Dr	Grease and sticks.
4/21/02	200	100	McAlpine Creek trib	0	8101 Ivey Fall Ct	Grease and paper
4/25/02	50	0	n/a	0	7113 Riding Trail Rd	Root & grease blockage.
4/30/02	10020	5000	Back Creek trib	0	9630 Kayce Ln	Grease and sticks.
4/30/02	100	0	n/a	0	9500 Central Dr, Mint Hill	Grease, sticks and paper
4/30/02	50	0	n/a	0	2845 LaSalle St	Blockage caused by grease, paper and roots.
<b>month total</b>	<b>47,745</b>	<b>33,450</b>				

<b>MAY Date</b>	<b>Total Estimate (gallons)</b>	<b>Amount Reaching Surface Water (gallons)</b>	<b>Surface Water Name</b>	<b># Fish Killed</b>	<b>Address</b>	<b>Cause of Spill/Bypass</b>
5/1/02	9600	9600	Lake Norman Cove trib	0	20705 Sterling Bay Ln East	Grease and roots.
5/1/02	400	400	McAlpine Creek trib	0	6211 Gold Wagon Ln, Mint Hill	Roots and grease. At rear of home at 6211 Gold Wagon Ln Mint Hill
5/1/02	2000	2000	Edwards Branch trib	0	5001 Erickson Rd	Sticks and paper caused blockage.
5/3/02	20	0	n/a	0	216 Emerson Av	Cause undetermined. Was only around manhole
5/5/02	2325	2325	Derita Branch trib	0	830 W Craighead Rd	Blockage due to grease.
5/5/02	2650	2650	McMullen Creek trib	0	3610 Highview Rd	Damaged pipe.
5/5/02	2800	2800	McMullen Creek trib	0	3932 Huckleberry Rd	Roots and grease.
5/5/02	800	800	Toby Creek trib	0	7014 Rockland Dr	Roots
5/5/02	600	600	Walker Branch trib	0	13619 Harpendon Ln	Grease and roots
5/6/02	100	0	n/a	0	9908 Wild Dogwood Ct	Grease (on Brown Grice Rd)
5/6/02	100	75	McMullen Creek trib	0	4812 Yardley Pl	Paper, plastic and debris. *****Was originally called in as 4841 Charleston Dr.*****
5/7/02	800	400	Irwin Creek trib	0	2540 Pickway Dr	Blockage due to roots.
5/7/02	4600	0	n/a	0	5809 Idlebrook Dr	Grease and paper.
5/8/02	1270	1270	McAlpine Creek trib	0	5727 Doncaster Dr	Main line blockage due to roots.
5/8/02	100	0	n/a	0	3900 Windwood Cr	Roots. Spill occurred from a clean out due to mainline blockage.
5/9/02	3500	3000	Kings Branch trib	0	639 Archdale Dr	Grease and sticks
5/9/02	9400	400	Long Creek trib	0	9031 Treyburn Dr	Grease in City main.
5/13/02	400	50	McMullen Creek trib	0	449 Roselawn Pl	Roots in main line
5/14/02	835	835	Mallard Creek trib	0	12027 N Tryon St	Blockage due to grease.

5/15/02	4600	4600	Campbell Creek trib	0	5616 Farm Pond Ln	Blockage due to grease and paper.
5/17/02	23520	23000	McCullough Creek trib	0	523 N Main St, Pineville	Sand and dirt caused blockage
5/19/02	400	200	Sugar Creek trib	0	2618 Portland Av	Roots and grease caused blockage.
5/20/02	400	400	Sugar Creek trib	0	5135 Queen Anne Rd	Blockage caused by grease and paper.
5/21/02	50	50	Lake Norman trib	0	204 Lakeside Av, Davidson	Roots in main line
5/22/02	200	200	Taggart Creek trib	0	4916 Westridge Dr	Blockage caused by grease and roots.
5/22/02	100	100	Irwin Creek trib	0	3526 Sargeant Dr	Sewage was leaking from joint in pipe.
5/24/02	100	0	n/a	0	2400 Shamrock Dr	Leaking from sewer line into storm drain.
5/25/02	100	100	Briar Creek trib	0	1001 Dresden Dr West	Line blocked by roots, leaking from joint.
5/27/02	10275	10275	Mallard Creek trib	0	7920 Neal Rd	Large rocks in mouth of pipe.
5/28/02	3375	3375	Sugar Creek trib	0	400 Edgegreen Dr	Grease
5/29/02	1270	1270	Four Mile Creek trib	0	5031 Parview Dr South	Grease in the main line and roots.
<b>month total</b>	<b>86,690</b>	<b>70,775</b>				

<b>JUNE Date</b>	<b>Total Estimate (gallons)</b>	<b>Amount Reaching Surface Water (gallons)</b>	<b>Surface Water Name</b>	<b># Fish Killed</b>	<b>Address</b>	<b>Cause of Spill/Bypass</b>
6/2/02	600	600	Cambell Creek trib	0	5832 Amity Pl	Grease main line blockage
6/3/02	50	25	n/a	0	3317 Anson St	Grease and paper caused blockage
6/5/02	2540	500	Taggart Creek trib	0	4431 Ridgevalley Dr	Grease & rocks main line blockage
6/5/02	400	100	Briar Creek trib	0	5306 Galway Dr	Vandalism/ rip rap rocks thrown into manhole (15 rocks)
6/5/02	250	50	King Branch Creek trib	0	8848 Red Oak BV	Rocks-main line blockage

6/6/02	7800	5850	Irwin Creek trib	0	533 Williamson St	Storm water project, cutting down trees. The trees fell on sewer line breaking pipe
6/6/02	100	100	Sugar Creek trib	0	1656 Maryland Av	Roots and Grease in main line blockage
6/6/02	20250	20250	Clarks Creek South Prong trib	0	14201 Old Vermillion Dr, Huntersville	Excessive inflow into the gravity system during the rain event
6/7/02	100	100	McMullen Creek trib	0	6724 Brynwood Dr	Roots in main line blockage
6/7/02	4000	400	Steele Creek trib	0	13833 Carowinds Bv	Blockage at mouth of overflowing m/h
6/7/02	10	0	Irwin Creek trib	0	3201 Freedom Dr	Lateral Blockage
6/9/02	200	100	McAlpine Creek trib	0	11401 Five Cedars Dr	Roots and grease in main line blockage
6/10/02	800	0	McIntyre Creek trib	0	9620 Trinity Rd	Grease and roots in main line blockage -reported by Apt F
6/10/02	2400	2400	McAlpine Creek trib	0	6509 Santa Cruz TL	Grease in main line blockage
6/12/02	1670	1670	Four Mile Creek trib	0	3531 Laurenhurst Ln	Grease in main line blockage
6/12/02	500	0	Stowe Creek trib	0	4800 Westinghouse Bv	Testing pump station with potable water, spill was 95% potable water
6/13/02	19200	1920	McMullen Creek trib	0	2321 Knickerbocker Dr	Rocks and sand had been pushed into manhole by contractors. (Kip Prime)
6/18/02	2350	0	MaAlpine Creek trib	0	12222 Pinegate Ct	Lift station was being operated with diesel pump, installed 06/16/2002, due to station pump failure, clamp on 8"X 6" reducer pipe for diesel pump broke, allowing fitting to partially open.
6/18/02	2540	635	Four Mile Creek trib	0	7620 Raven Crest Park Dr	Rocks, bricks, and debris in main line causing blockage
6/19/02	400	400	McAlpine Creek trib	0	6701 Dulverton Dr	Grease and roots in main line causing blockage
6/19/02	400	400	Irvins Creek trib	0	8404 Willhill Rd	Sewage overflowing from air release valve
6/19/02	200	0	n/a	0	636 E John St	Roots and grease in main line causing blockage
6/20/02	100	100	McMullen Creek trib	0	4500 Arborway	Roots and grease in main line causing blockage

6/23/02	1270	1270	Campbell Creek trib	0	5531 Grafton Pl	Grease main line blockage
6/23/02	600	600	Lake Norman trib	0	20700 Torrence Chapel Rd, Cornelius	6" force main broke. " Main was repaired. 6' upstream was found to be leaking also. Repaired.
6/24/02	600	600	McAlpine Creek trib	0	9850 Standing Wood Ct, Mint Hill	Grease & paper main line blockage
6/24/02	26500	19875	Doby Creek trib	0	7123 Ruple Rd	Grease & paper main line blockage
6/25/02	6625	6000	Sugar Creek Little trib	0	611 Austin Dr	Root & paper main line blockage
6/27/02	2250	250	McAlpine Creek trib	0	10721 Alexander Mill Dr	String left by contractor caused paper & rock build-up main line blockage
6/29/02	150	0	n/a	0	4009 Whitehall Dr	Root, grease, & brick(s) main line blockage.
6/29/02	100	0	n/a	0	1731 West Bv	Grease main line blockage.
6/30/02	100	100	Irwin Creek trib	0	4109 Broadview Dr	Main line blocked with roots, sewage leaking from joint of pipe into storm drain
<b>month total</b>	<b>105,055</b>	<b>64,295</b>				

**TOTAL # OF FY02 COLLECTION SYSTEM SPILLS: 259**

**TOTAL # OF FY02 PLANT SPILLS: 7**

**VOLUME SAFELY COLLECTED, TREATED & DISCHARGED: 26,250,000,000 GALLONS**

**TOTAL VOLUME OF FY02 SPILLED: 1,264,880 GALLONS**

**% OF WASTEWATER SAFELY COLLECTED, TREATED AND RELEASED DURING FY02: more than 99.995%**

**FY01: more than 99.99%**

**FY00: more than 99.97%**

**SECTION IIB. Permit Compliance and Reporting Violations, by plant**

PLANT NAME	MONTH	PERMIT LIMIT REQUIREMENT VIOLATION	REPORTING REQUIREMENT VIOLATION	RESOLUTION OF PERMIT LIMIT VIOLATION	RESOLUTION OF REPORTING REQUIREMENT VIOLATION
McAlpine Creek WWTP	June 2002		Reporting violations occurred for the LSC1 Creek Sampling Site. A new permit was issued to McAlpine Creek WWTF. Upon review the frequency for the sampling DO, conductivity and temperature was missed and these parameters were only sampled once during the month instead of the required weekly.		Sampling procedure changed to weekly
Mallard Creek WWTP	October 2001	Weekly average cBOD Result for the week of 10/8 – 10/12.  Monthly average CBOD limit		These violations occurred due to a mechanical failure with one of the plant's secondary clarifiers, and the addition of flow from the day tank, when the construction contractor emptied the tank without notifying plant staff.	
	March 2002	pH		Unknown reason for daily pH level of 5.8 on 3/5/02. Caustic	

				feed increased to prevent further violations.	
Irwin Creek WWTP	July 2001	pH		On 7/18/01 the caustic feed system failed. Both pumps were Replaced and the piping and valve system rehabbed.	
	September 2001	Residual chlorine daily maximum		During a switchover to potable water on 9/28/01 in the chlorination system, the non-potable water system was temporarily shut down. This caused the sodium bisulfite to be off-line for a 30-minute time period. Residual chlorine returned to within daily permit limits within 45 minutes.	

**(Sugar Creek and McDowell Creek wastewater plants had 100 percent compliance during the fiscal year ending June 30, 2002.)**